

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of identifying a predetermined number of computers within a computer network which satisfy one or more specified conditions, the method comprising ~~the steps of:~~

~~a first communicating a request from an originating computer communicating to one or more of the computers in the network a request message which includes said one or more specified conditions and a token value which is indicative of a number of computer devices to be located by the message;~~

~~receiving said request message at subsequent computers and at each subsequent computer which receives a request message processing the message by message, performing the following steps:~~

~~determining if it is able to satisfy the one or more conditions specified in the request message and if so, decrementing the token value within the received request message and identifying itself to the request originating computer, and then~~

~~determining if the, possibly decremented, token value in the received request message indicates that at least one further computer device is required to be located and if so, forwarding the message, or a plurality of one or more daughter messages[[,]] on to a subsequent computer device or devices or computers within the computer network unless a restriction criterion has been met met,~~

~~wherein each daughter message includes said one or more specified conditions and a token value such that the token value if only one daughter message is forwarded, or the sum of~~

the token values of the daughter messages if more than one daughter message is forwarded,
equals the, possibly decremented, token value of the received request message.

2. (Original) A method as claimed in claim 1 wherein each message includes a number of further hops permissible as a restriction criterion and each time the message is newly received by a device it decrements the number of further hops permissible until it reaches zero whereupon the restriction criterion is deemed to have been met.

3. (Currently Amended) A method as claimed in claim 1, wherein each ~~device~~
computer maintains a register of neighboring devices for the purpose of communicating request
messages thereto together with a probability associated with each neighbouring registered
neighboring device and wherein these probabilities are used to determine to which ~~neighbouring~~
neighboring device or devices a request message or messages is or are to be sent.

4. (Currently Amended) A method as claimed in claim 3 wherein a ~~device periodically~~
computer from time to time requests certain of its neighbours-neighbors to re-register with other
devices-computers in dependence upon the probabilities associated with its ~~neighbouring devices~~
registered neighboring computers.

5. (Currently Amended) A method of storing a data file in a computer network, the
method comprising ~~the steps of:~~

identifying a predetermined number of computers within a computer network using the
method according to claim 1 which satisfy one or more specified conditions by: a first computer

~~which has a copy of the data file to be stored communicating to one or more of the other computers in the network a request message which includes said one or more specified conditions and a token value which is indicative of a number of computer devices to be located by the message; each subsequent computer which receives a request message processing the message by performing the following steps: determining if it is able to satisfy the one or more conditions specified in the request message and if so, reporting this fact back to the first computer and decrementing the token value within the message, and then determining if the token value in the request message indicates that at least one further computer device requires locating by the message and if so, forwarding the message, or a plurality of daughter messages, on to a subsequent computer device or devices within the computer network unless a restriction criterion has been met;~~

generating a first plurality, corresponding to the identified predetermined number of computers, of erasure coded fragments from the data file such that any subset of the fragments which contains at least a smaller predetermined number of the first plurality of fragments can be used to recreate the data file; and

transmitting each of the erasure coded fragments to a respective one of the identified computers for storage thereon;

wherein at least one of the one or more specified conditions is that the computer has sufficient storage space available for storing one of said fragments.

6. (Cancelled)

7. (Previously Presented) A method as claimed in claim 5 wherein each fragment is encoded before transmission to a respective identified computer.

8. (Previously Presented) A method as claimed in claim 5 wherein each fragment is transmitted together with the public key of a ~~public/private~~ public/private key combination belonging to a user attempting to store the data file.

9. (Previously Presented) A method as claimed in claim 5 wherein the data file is first transmitted from a remote client device to a gateway computer which is on the other side of a firewall between the remote client device and the gateway server, the computer network within which the computers are to be identified also being located on the other side of the firewall to the remote client device.

10. (Currently Amended) A computer network comprising a plurality of ~~computer devices~~ computers having data connections such that each computer ~~device~~ within the network can communicate with any other ~~device~~ computer within the network provided both computers are running and correctly connected into the network, each ~~device~~ computer within the network comprising:

a request generator for generating request messages each of which includes a token value indicative of the number of other ~~devices~~ computers within the network to be identified by the message and one or more specified conditions which each identified computer is to satisfy; and

a request processor for processing received request messages by:

determining if it is able to satisfy the one or more conditions specified in the request message and if so, decrementing the token value within the message and identifying itself to the originator of the corresponding received request message, and then,

determining if the, possibly decremented, token value in the request message indicates that at least one further computer ~~device requires locating~~ is required to be located by the message and if so, forwarding the ~~message, or a plurality of one or more~~ daughter messages[[,]] on to a subsequent computer ~~device or devices or computers~~ within the computer ~~network~~ network, unless a restriction criterion has been ~~met~~ met,

wherein each daughter message includes said one or more specified conditions and a token value such that the token value if only one daughter message is forwarded, or the sum of the token values of the daughter messages if more than one daughter message is forwarded, equals the, possibly decremented, token value of the received request message.

11. (Currently Amended) A computer ~~device~~ for forming part of a computer network comprising a plurality of ~~computer devices~~ computers having data connections such that each computer ~~device~~ within the network can communicate with any other ~~device~~ computer within the network provided both computers are running and correctly connected into the network, the ~~device~~ computer comprising:

a request generator for generating request messages each of which includes a token value indicative of the number of other ~~devices~~ computers within the network to be identified by the message and one or more specified conditions which each identified computer is to satisfy; and

a request processor for processing received request messages by:

determining if it is able to satisfy the one or more conditions specified in the received request message and if so, decrementing the token value within the message and identifying itself to the originator of the ~~corresponding~~ received request message, and then,

determining if the, possibly decremented, token value in the received request message indicates that at least one further computer ~~device requires locating~~ is required to be located by the message and if so, forwarding ~~the message, or a plurality of one or more~~ daughter messages[[,]] on to a subsequent computer ~~device or devices or computers~~ within the computer network-network, unless a restriction criterion has been ~~met~~

wherein each daughter message includes said one or more specified conditions and a token value such that the token value if only one daughter message is forwarded, or the sum of the token values of the daughter messages if more than one daughter message is forwarded, equals the, possibly decremented, token value of the received request message.